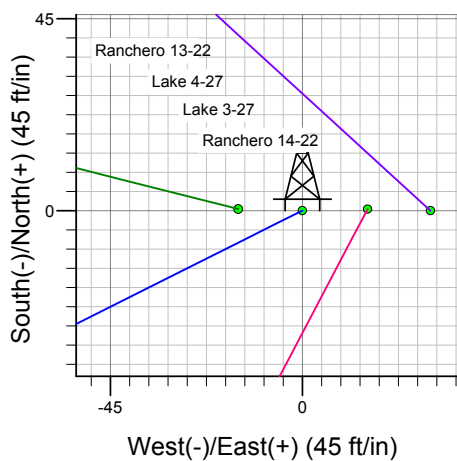
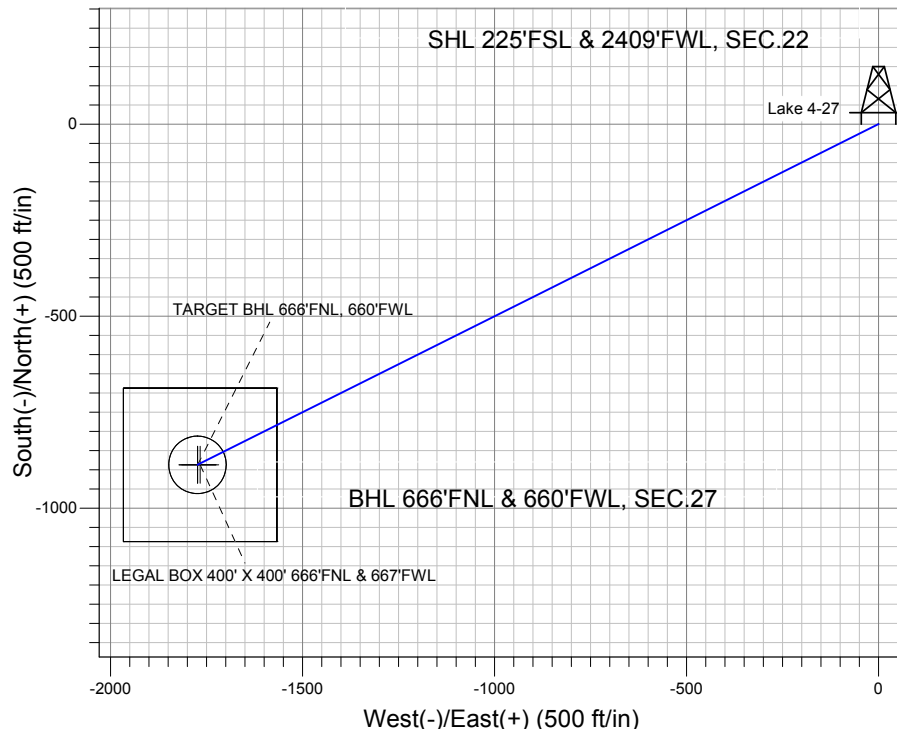
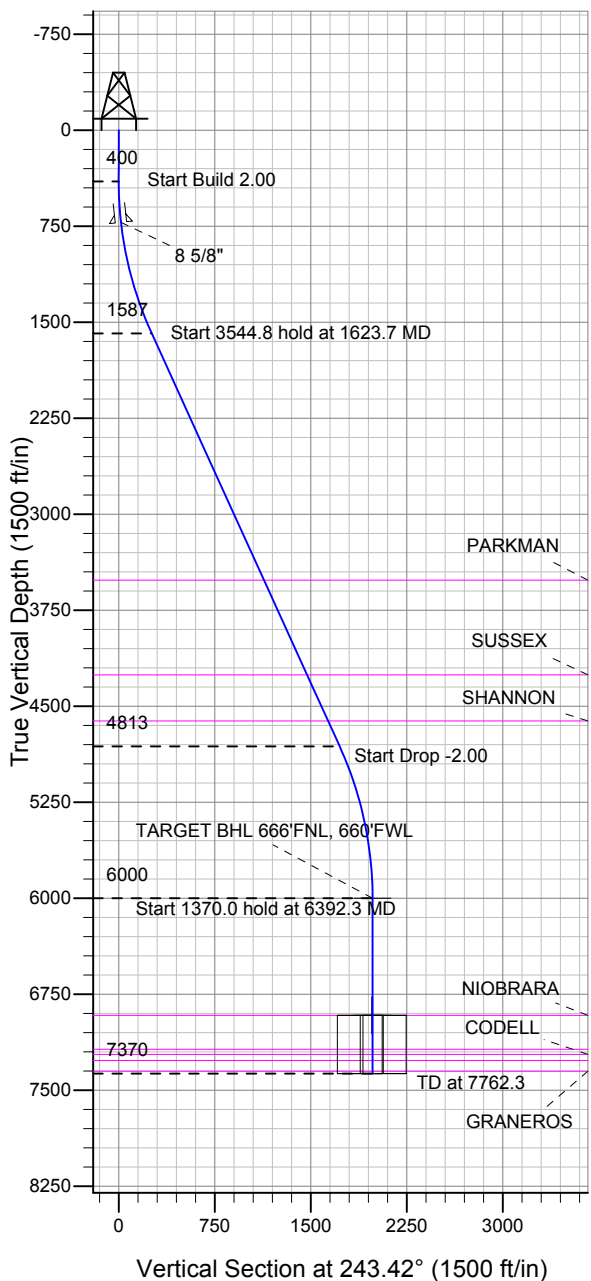


Well Name: Lake 4-27

Surface Location: Lake - Ranchero Pad Sec.22-T7N-R67W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 5004.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1444921.51 3172234.03 40.553057 -104.880184
 Original Well Elev WELL @ 5020.0ft (Original Well Elev)

BAYSWATER EXPLORATION & PRODUCTION



Lake - Ranchero Pad Sec.22-T7N-R67W
 Lake 4-27
 Plan #1 (4-09-12)
 13:58, April 11 2012



Azimuths to True North
 Magnetic North: 8.83°

Magnetic Field
 Strength: 53110.7snT
 Dip Angle: 67.13°
 Date: 4/11/2012
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 666'FNL, 660'FWL	6000.0	-887.4	-1773.8	40.550621	-104.886567	Point
LEGAL BOX 400' X 400' 666'FNL & 667'FWL	6915.0	-887.4	-1766.8	40.550621	-104.886542	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 666'FNL & 660'FWL	6915.0	-887.4	-1773.8	40.550621	-104.886567	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	1623.7	24.47	243.42	1586.9	-115.2	-230.2	2.00	243.42	257.4	
4	5168.5	24.47	243.42	4813.1	-772.2	-1543.6	0.00	0.00	1726.0	
5	6392.3	0.00	0.00	6000.0	-887.4	-1773.8	2.00	180.00	1983.4	TARGET BHL 660'FNL, 660'FWL
6	7762.3	0.00	0.00	7370.0	-887.4	-1773.8	0.00	0.00	1983.4	



Directional

BAYSWATER EXPLORATION & PRODUCTION

SEC.22-T7N-R67W

Lake - Rancho Pad Sec.22-T7N-R67W

Lake 4-27

Wellbore #1

Plan: Plan #1 (4-09-12)

Standard Planning Report

11 April, 2012

Database:	Landmark	Local Co-ordinate Reference:	Well Lake 4-27
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Project:	SEC.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site:	Lake - Ranchero Pad Sec.22-T7N-R67W	North Reference:	True
Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-09-12)		

Project	SEC.22-T7N-R67W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site						Lake - Ranchero Pad Sec.22-T7N-R67W											
Site Position:			Northing:			1,444,921.99 ft			Latitude:			40.553058					
From:			Lat/Long			Easting:			3,172,249.31 ft			Longitude:			-104.880129		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.40 °		

Well	Lake 4-27					
Well Position	+N/-S	-0.4 ft	Northing:	1,444,921.51 ft	Latitude:	40.553057
	+E/-W	-15.3 ft	Easting:	3,172,234.03 ft	Longitude:	-104.880184
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,004.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/11/2012	8.83	67.13	53,111

Design	Plan #1 (4-09-12)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	243.42

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,623.7	24.47	243.42	1,586.9	-115.2	-230.2	2.00	2.00	0.00	243.42	
5,168.5	24.47	243.42	4,813.1	-772.2	-1,543.6	0.00	0.00	0.00	0.00	
6,392.3	0.00	0.00	6,000.0	-887.4	-1,773.8	2.00	-2.00	0.00	180.00	TARGET BHL 660'I
7,762.3	0.00	0.00	7,370.0	-887.4	-1,773.8	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Lake 4-27
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Project:	SEC.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site:	Lake - Ranchero Pad Sec.22-T7N-R67W	North Reference:	True
Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-09-12)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.80	243.42	440.0	-0.1	-0.2	0.3	2.00	2.00	0.00
480.0	1.60	243.42	480.0	-0.5	-1.0	1.1	2.00	2.00	0.00
520.0	2.40	243.42	520.0	-1.1	-2.2	2.5	2.00	2.00	0.00
560.0	3.20	243.42	559.9	-2.0	-4.0	4.5	2.00	2.00	0.00
600.0	4.00	243.42	599.8	-3.1	-6.2	7.0	2.00	2.00	0.00
640.0	4.80	243.42	639.7	-4.5	-9.0	10.0	2.00	2.00	0.00
680.0	5.60	243.42	679.6	-6.1	-12.2	13.7	2.00	2.00	0.00
720.0	6.40	243.42	719.3	-8.0	-16.0	17.9	2.00	2.00	0.00
720.7	6.41	243.42	720.0	-8.0	-16.0	17.9	2.00	2.00	0.00
8 5/8"									
760.0	7.20	243.42	759.1	-10.1	-20.2	22.6	2.00	2.00	0.00
800.0	8.00	243.42	798.7	-12.5	-24.9	27.9	2.00	2.00	0.00
840.0	8.80	243.42	838.3	-15.1	-30.2	33.7	2.00	2.00	0.00
880.0	9.60	243.42	877.8	-17.9	-35.9	40.1	2.00	2.00	0.00
920.0	10.40	243.42	917.1	-21.1	-42.1	47.1	2.00	2.00	0.00
960.0	11.20	243.42	956.4	-24.4	-48.8	54.6	2.00	2.00	0.00
1,000.0	12.00	243.42	995.6	-28.0	-56.0	62.6	2.00	2.00	0.00
1,040.0	12.80	243.42	1,034.7	-31.9	-63.7	71.2	2.00	2.00	0.00
1,080.0	13.60	243.42	1,073.6	-35.9	-71.8	80.3	2.00	2.00	0.00
1,120.0	14.40	243.42	1,112.4	-40.3	-80.5	90.0	2.00	2.00	0.00
1,160.0	15.20	243.42	1,151.1	-44.8	-89.6	100.2	2.00	2.00	0.00
1,200.0	16.00	243.42	1,189.6	-49.7	-99.2	111.0	2.00	2.00	0.00
1,240.0	16.80	243.42	1,228.0	-54.7	-109.3	122.3	2.00	2.00	0.00
1,280.0	17.60	243.42	1,266.2	-60.0	-119.9	134.1	2.00	2.00	0.00
1,320.0	18.40	243.42	1,304.3	-65.5	-131.0	146.5	2.00	2.00	0.00
1,360.0	19.20	243.42	1,342.1	-71.3	-142.5	159.3	2.00	2.00	0.00
1,400.0	20.00	243.42	1,379.8	-77.3	-154.5	172.8	2.00	2.00	0.00
1,440.0	20.80	243.42	1,417.3	-83.5	-167.0	186.7	2.00	2.00	0.00
1,480.0	21.60	243.42	1,454.6	-90.0	-179.9	201.2	2.00	2.00	0.00
1,520.0	22.40	243.42	1,491.7	-96.7	-193.3	216.2	2.00	2.00	0.00
1,560.0	23.20	243.42	1,528.6	-103.6	-207.2	231.7	2.00	2.00	0.00
1,600.0	24.00	243.42	1,565.2	-110.8	-221.5	247.7	2.00	2.00	0.00
1,623.7	24.47	243.42	1,586.9	-115.2	-230.2	257.4	2.00	2.00	0.00
1,640.0	24.47	243.42	1,601.7	-118.2	-236.2	264.2	0.00	0.00	0.00
1,680.0	24.47	243.42	1,638.1	-125.6	-251.1	280.7	0.00	0.00	0.00
1,720.0	24.47	243.42	1,674.5	-133.0	-265.9	297.3	0.00	0.00	0.00
1,760.0	24.47	243.42	1,710.9	-140.4	-280.7	313.9	0.00	0.00	0.00
1,800.0	24.47	243.42	1,747.3	-147.8	-295.5	330.4	0.00	0.00	0.00
1,840.0	24.47	243.42	1,783.7	-155.3	-310.3	347.0	0.00	0.00	0.00
1,880.0	24.47	243.42	1,820.1	-162.7	-325.2	363.6	0.00	0.00	0.00
1,920.0	24.47	243.42	1,856.5	-170.1	-340.0	380.2	0.00	0.00	0.00
1,960.0	24.47	243.42	1,892.9	-177.5	-354.8	396.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Lake 4-27
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Project:	SEC.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site:	Lake - Ranchero Pad Sec.22-T7N-R67W	North Reference:	True
Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-09-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,000.0	24.47	243.42	1,929.3	-184.9	-369.6	413.3	0.00	0.00	0.00
2,040.0	24.47	243.42	1,965.7	-192.3	-384.4	429.9	0.00	0.00	0.00
2,080.0	24.47	243.42	2,002.1	-199.7	-399.3	446.4	0.00	0.00	0.00
2,120.0	24.47	243.42	2,038.5	-207.2	-414.1	463.0	0.00	0.00	0.00
2,160.0	24.47	243.42	2,074.9	-214.6	-428.9	479.6	0.00	0.00	0.00
2,200.0	24.47	243.42	2,111.3	-222.0	-443.7	496.2	0.00	0.00	0.00
2,240.0	24.47	243.42	2,147.7	-229.4	-458.6	512.7	0.00	0.00	0.00
2,280.0	24.47	243.42	2,184.2	-236.8	-473.4	529.3	0.00	0.00	0.00
2,320.0	24.47	243.42	2,220.6	-244.2	-488.2	545.9	0.00	0.00	0.00
2,360.0	24.47	243.42	2,257.0	-251.6	-503.0	562.4	0.00	0.00	0.00
2,400.0	24.47	243.42	2,293.4	-259.1	-517.8	579.0	0.00	0.00	0.00
2,440.0	24.47	243.42	2,329.8	-266.5	-532.7	595.6	0.00	0.00	0.00
2,480.0	24.47	243.42	2,366.2	-273.9	-547.5	612.2	0.00	0.00	0.00
2,520.0	24.47	243.42	2,402.6	-281.3	-562.3	628.7	0.00	0.00	0.00
2,560.0	24.47	243.42	2,439.0	-288.7	-577.1	645.3	0.00	0.00	0.00
2,600.0	24.47	243.42	2,475.4	-296.1	-591.9	661.9	0.00	0.00	0.00
2,640.0	24.47	243.42	2,511.8	-303.5	-606.8	678.5	0.00	0.00	0.00
2,680.0	24.47	243.42	2,548.2	-311.0	-621.6	695.0	0.00	0.00	0.00
2,720.0	24.47	243.42	2,584.6	-318.4	-636.4	711.6	0.00	0.00	0.00
2,760.0	24.47	243.42	2,621.0	-325.8	-651.2	728.2	0.00	0.00	0.00
2,800.0	24.47	243.42	2,657.4	-333.2	-666.0	744.7	0.00	0.00	0.00
2,840.0	24.47	243.42	2,693.8	-340.6	-680.9	761.3	0.00	0.00	0.00
2,880.0	24.47	243.42	2,730.2	-348.0	-695.7	777.9	0.00	0.00	0.00
2,920.0	24.47	243.42	2,766.6	-355.4	-710.5	794.5	0.00	0.00	0.00
2,960.0	24.47	243.42	2,803.0	-362.9	-725.3	811.0	0.00	0.00	0.00
3,000.0	24.47	243.42	2,839.5	-370.3	-740.1	827.6	0.00	0.00	0.00
3,040.0	24.47	243.42	2,875.9	-377.7	-755.0	844.2	0.00	0.00	0.00
3,080.0	24.47	243.42	2,912.3	-385.1	-769.8	860.7	0.00	0.00	0.00
3,120.0	24.47	243.42	2,948.7	-392.5	-784.6	877.3	0.00	0.00	0.00
3,160.0	24.47	243.42	2,985.1	-399.9	-799.4	893.9	0.00	0.00	0.00
3,200.0	24.47	243.42	3,021.5	-407.4	-814.2	910.5	0.00	0.00	0.00
3,240.0	24.47	243.42	3,057.9	-414.8	-829.1	927.0	0.00	0.00	0.00
3,280.0	24.47	243.42	3,094.3	-422.2	-843.9	943.6	0.00	0.00	0.00
3,320.0	24.47	243.42	3,130.7	-429.6	-858.7	960.2	0.00	0.00	0.00
3,360.0	24.47	243.42	3,167.1	-437.0	-873.5	976.7	0.00	0.00	0.00
3,400.0	24.47	243.42	3,203.5	-444.4	-888.3	993.3	0.00	0.00	0.00
3,440.0	24.47	243.42	3,239.9	-451.8	-903.2	1,009.9	0.00	0.00	0.00
3,480.0	24.47	243.42	3,276.3	-459.3	-918.0	1,026.5	0.00	0.00	0.00
3,520.0	24.47	243.42	3,312.7	-466.7	-932.8	1,043.0	0.00	0.00	0.00
3,560.0	24.47	243.42	3,349.1	-474.1	-947.6	1,059.6	0.00	0.00	0.00
3,600.0	24.47	243.42	3,385.5	-481.5	-962.5	1,076.2	0.00	0.00	0.00
3,640.0	24.47	243.42	3,421.9	-488.9	-977.3	1,092.7	0.00	0.00	0.00
3,680.0	24.47	243.42	3,458.4	-496.3	-992.1	1,109.3	0.00	0.00	0.00
3,720.0	24.47	243.42	3,494.8	-503.7	-1,006.9	1,125.9	0.00	0.00	0.00
3,742.2	24.47	243.42	3,515.0	-507.9	-1,015.2	1,135.1	0.00	0.00	0.00
PARKMAN									
3,760.0	24.47	243.42	3,531.2	-511.2	-1,021.7	1,142.5	0.00	0.00	0.00
3,800.0	24.47	243.42	3,567.6	-518.6	-1,036.6	1,159.0	0.00	0.00	0.00
3,840.0	24.47	243.42	3,604.0	-526.0	-1,051.4	1,175.6	0.00	0.00	0.00
3,880.0	24.47	243.42	3,640.4	-533.4	-1,066.2	1,192.2	0.00	0.00	0.00
3,920.0	24.47	243.42	3,676.8	-540.8	-1,081.0	1,208.7	0.00	0.00	0.00
3,960.0	24.47	243.42	3,713.2	-548.2	-1,095.8	1,225.3	0.00	0.00	0.00
4,000.0	24.47	243.42	3,749.6	-555.6	-1,110.7	1,241.9	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Lake 4-27
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Project:	SEC.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site:	Lake - Ranchero Pad Sec.22-T7N-R67W	North Reference:	True
Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-09-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,040.0	24.47	243.42	3,786.0	-563.1	-1,125.5	1,258.5	0.00	0.00	0.00
4,080.0	24.47	243.42	3,822.4	-570.5	-1,140.3	1,275.0	0.00	0.00	0.00
4,120.0	24.47	243.42	3,858.8	-577.9	-1,155.1	1,291.6	0.00	0.00	0.00
4,160.0	24.47	243.42	3,895.2	-585.3	-1,169.9	1,308.2	0.00	0.00	0.00
4,200.0	24.47	243.42	3,931.6	-592.7	-1,184.8	1,324.8	0.00	0.00	0.00
4,240.0	24.47	243.42	3,968.0	-600.1	-1,199.6	1,341.3	0.00	0.00	0.00
4,280.0	24.47	243.42	4,004.4	-607.5	-1,214.4	1,357.9	0.00	0.00	0.00
4,320.0	24.47	243.42	4,040.8	-615.0	-1,229.2	1,374.5	0.00	0.00	0.00
4,360.0	24.47	243.42	4,077.2	-622.4	-1,244.0	1,391.0	0.00	0.00	0.00
4,400.0	24.47	243.42	4,113.7	-629.8	-1,258.9	1,407.6	0.00	0.00	0.00
4,440.0	24.47	243.42	4,150.1	-637.2	-1,273.7	1,424.2	0.00	0.00	0.00
4,480.0	24.47	243.42	4,186.5	-644.6	-1,288.5	1,440.8	0.00	0.00	0.00
4,520.0	24.47	243.42	4,222.9	-652.0	-1,303.3	1,457.3	0.00	0.00	0.00
4,555.3	24.47	243.42	4,255.0	-658.6	-1,316.4	1,472.0	0.00	0.00	0.00
SUSSEX									
4,560.0	24.47	243.42	4,259.3	-659.4	-1,318.1	1,473.9	0.00	0.00	0.00
4,600.0	24.47	243.42	4,295.7	-666.9	-1,333.0	1,490.5	0.00	0.00	0.00
4,640.0	24.47	243.42	4,332.1	-674.3	-1,347.8	1,507.0	0.00	0.00	0.00
4,680.0	24.47	243.42	4,368.5	-681.7	-1,362.6	1,523.6	0.00	0.00	0.00
4,720.0	24.47	243.42	4,404.9	-689.1	-1,377.4	1,540.2	0.00	0.00	0.00
4,760.0	24.47	243.42	4,441.3	-696.5	-1,392.2	1,556.8	0.00	0.00	0.00
4,800.0	24.47	243.42	4,477.7	-703.9	-1,407.1	1,573.3	0.00	0.00	0.00
4,840.0	24.47	243.42	4,514.1	-711.3	-1,421.9	1,589.9	0.00	0.00	0.00
4,880.0	24.47	243.42	4,550.5	-718.8	-1,436.7	1,606.5	0.00	0.00	0.00
4,920.0	24.47	243.42	4,586.9	-726.2	-1,451.5	1,623.0	0.00	0.00	0.00
4,950.8	24.47	243.42	4,615.0	-731.9	-1,463.0	1,635.8	0.00	0.00	0.00
SHANNON									
4,960.0	24.47	243.42	4,623.3	-733.6	-1,466.4	1,639.6	0.00	0.00	0.00
5,000.0	24.47	243.42	4,659.7	-741.0	-1,481.2	1,656.2	0.00	0.00	0.00
5,040.0	24.47	243.42	4,696.1	-748.4	-1,496.0	1,672.8	0.00	0.00	0.00
5,080.0	24.47	243.42	4,732.6	-755.8	-1,510.8	1,689.3	0.00	0.00	0.00
5,120.0	24.47	243.42	4,769.0	-763.2	-1,525.6	1,705.9	0.00	0.00	0.00
5,160.0	24.47	243.42	4,805.4	-770.7	-1,540.5	1,722.5	0.00	0.00	0.00
5,168.5	24.47	243.42	4,813.1	-772.2	-1,543.6	1,726.0	0.00	0.00	0.00
5,200.0	23.85	243.42	4,841.8	-778.0	-1,555.1	1,738.9	2.00	-2.00	0.00
5,240.0	23.05	243.42	4,878.5	-785.1	-1,569.4	1,754.8	2.00	-2.00	0.00
5,280.0	22.25	243.42	4,915.5	-792.0	-1,583.1	1,770.2	2.00	-2.00	0.00
5,320.0	21.45	243.42	4,952.6	-798.7	-1,596.5	1,785.1	2.00	-2.00	0.00
5,360.0	20.65	243.42	4,989.9	-805.1	-1,609.3	1,799.5	2.00	-2.00	0.00
5,400.0	19.85	243.42	5,027.4	-811.3	-1,621.7	1,813.3	2.00	-2.00	0.00
5,440.0	19.05	243.42	5,065.2	-817.3	-1,633.6	1,826.6	2.00	-2.00	0.00
5,480.0	18.25	243.42	5,103.1	-823.0	-1,645.0	1,839.4	2.00	-2.00	0.00
5,520.0	17.45	243.42	5,141.1	-828.5	-1,656.0	1,851.7	2.00	-2.00	0.00
5,560.0	16.65	243.42	5,179.4	-833.7	-1,666.5	1,863.4	2.00	-2.00	0.00
5,600.0	15.85	243.42	5,217.8	-838.7	-1,676.5	1,874.6	2.00	-2.00	0.00
5,640.0	15.05	243.42	5,256.3	-843.5	-1,686.0	1,885.2	2.00	-2.00	0.00
5,680.0	14.25	243.42	5,295.0	-848.0	-1,695.1	1,895.3	2.00	-2.00	0.00
5,720.0	13.45	243.42	5,333.9	-852.3	-1,703.6	1,904.9	2.00	-2.00	0.00
5,760.0	12.65	243.42	5,372.8	-856.3	-1,711.7	1,913.9	2.00	-2.00	0.00
5,800.0	11.85	243.42	5,411.9	-860.1	-1,719.3	1,922.4	2.00	-2.00	0.00
5,840.0	11.05	243.42	5,451.1	-863.7	-1,726.4	1,930.4	2.00	-2.00	0.00
5,880.0	10.25	243.42	5,490.4	-867.0	-1,733.0	1,937.8	2.00	-2.00	0.00
5,920.0	9.45	243.42	5,529.9	-870.0	-1,739.1	1,944.6	2.00	-2.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Lake 4-27
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Project:	SEC.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site:	Lake - Ranchero Pad Sec.22-T7N-R67W	North Reference:	True
Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-09-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,960.0	8.65	243.42	5,569.4	-872.9	-1,744.7	1,950.9	2.00	-2.00	0.00
6,000.0	7.85	243.42	5,608.9	-875.4	-1,749.9	1,956.6	2.00	-2.00	0.00
6,040.0	7.05	243.42	5,648.6	-877.7	-1,754.5	1,961.8	2.00	-2.00	0.00
6,080.0	6.25	243.42	5,688.3	-879.8	-1,758.6	1,966.4	2.00	-2.00	0.00
6,120.0	5.45	243.42	5,728.1	-881.6	-1,762.3	1,970.5	2.00	-2.00	0.00
6,160.0	4.65	243.42	5,768.0	-883.2	-1,765.4	1,974.0	2.00	-2.00	0.00
6,200.0	3.85	243.42	5,807.9	-884.5	-1,768.1	1,977.0	2.00	-2.00	0.00
6,240.0	3.05	243.42	5,847.8	-885.6	-1,770.2	1,979.4	2.00	-2.00	0.00
6,280.0	2.25	243.42	5,887.7	-886.4	-1,771.9	1,981.2	2.00	-2.00	0.00
6,320.0	1.45	243.42	5,927.7	-887.0	-1,773.0	1,982.5	2.00	-2.00	0.00
6,360.0	0.65	243.42	5,967.7	-887.3	-1,773.7	1,983.3	2.00	-2.00	0.00
6,392.3	0.00	0.00	6,000.0	-887.4	-1,773.8	1,983.4	2.00	-2.00	361.12
TARGET BHL 666'FNL, 660'FWL									
6,400.0	0.00	0.00	6,007.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,440.0	0.00	0.00	6,047.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,480.0	0.00	0.00	6,087.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,520.0	0.00	0.00	6,127.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,560.0	0.00	0.00	6,167.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,207.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,640.0	0.00	0.00	6,247.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,680.0	0.00	0.00	6,287.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,720.0	0.00	0.00	6,327.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,760.0	0.00	0.00	6,367.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,800.0	0.00	0.00	6,407.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,840.0	0.00	0.00	6,447.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,880.0	0.00	0.00	6,487.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,920.0	0.00	0.00	6,527.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
6,960.0	0.00	0.00	6,567.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,000.0	0.00	0.00	6,607.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,040.0	0.00	0.00	6,647.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,080.0	0.00	0.00	6,687.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,120.0	0.00	0.00	6,727.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,160.0	0.00	0.00	6,767.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,200.0	0.00	0.00	6,807.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,240.0	0.00	0.00	6,847.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,280.0	0.00	0.00	6,887.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,307.3	0.00	0.00	6,915.0	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
NIOBRARA - LEGAL BOX 400' X 400' 666'FNL & 667'FWL - TARGET CIRCLE 666'FNL & 660'FWL									
7,320.0	0.00	0.00	6,927.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,360.0	0.00	0.00	6,967.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,400.0	0.00	0.00	7,007.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,440.0	0.00	0.00	7,047.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,480.0	0.00	0.00	7,087.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,520.0	0.00	0.00	7,127.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,560.0	0.00	0.00	7,167.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,572.3	0.00	0.00	7,180.0	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
FT. HAYS									
7,600.0	0.00	0.00	7,207.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,612.3	0.00	0.00	7,220.0	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
CODELL									
7,640.0	0.00	0.00	7,247.7	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00
7,660.3	0.00	0.00	7,268.0	-887.4	-1,773.8	1,983.4	0.00	0.00	0.00

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	3,742.2	3,515.0	PARKMAN		0.00	
	4,555.3	4,255.0	SUSSEX		0.00	
	4,950.8	4,615.0	SHANNON		0.00	
	7,307.3	6,915.0	NIOBRARA		0.00	
	7,572.3	7,180.0	FT. HAYS		0.00	
	7,612.3	7,220.0	CODELL		0.00	
	7,660.3	7,268.0	GREENHORN		0.00	
	7,744.3	7,352.0	GRANEROS		0.00	



Directional

BAYSWATER EXPLORATION & PRODUCTION

SEC.22-T7N-R67W

Lake - Rancho Pad Sec.22-T7N-R67W

Lake 4-27

Wellbore #1

Plan #1 (4-09-12)

Anticollision Report

11 April, 2012

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Lake 4-27
Project:	SEC.22-T7N-R67W	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Reference Site:	Lake - Ranchero Pad Sec.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-09-12)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (4-09-12)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 4/11/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	7,762.3	Plan #1 (4-09-12) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Lake - Ranchero Pad Sec.22-T7N-R67W						
Lake 3-27 - Wellbore #1 - Plan #1 (4-05-12)	400.0	400.0	15.3	13.7	9.717	CC, ES
Lake 3-27 - Wellbore #1 - Plan #1 (4-05-12)	500.0	500.0	16.9	14.9	8.414	SF
Ranchero 13-22 - Wellbore #1 - Plan #1 (4-09-12)	200.0	200.0	15.0	14.3	22.261	CC, ES
Ranchero 13-22 - Wellbore #1 - Plan #1 (4-09-12)	400.0	398.7	21.8	20.3	13.960	SF

Offset Design													Offset Site Error:	0.0 ft	
Lake - Ranchero Pad Sec.22-T7N-R67W - Lake 3-27 - Wellbore #1 - Plan #1 (4-05-12)													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	88.62	0.4	15.3	15.3	15.3	0.00	N/A			
100.0	100.0	100.0	100.0	0.1	0.1	88.62	0.4	15.3	15.3	15.1	0.22	68.019			
200.0	200.0	200.0	200.0	0.3	0.3	88.62	0.4	15.3	15.3	14.6	0.67	22.673			
300.0	300.0	300.0	300.0	0.6	0.6	88.62	0.4	15.3	15.3	14.2	1.12	13.604			
400.0	400.0	400.0	400.0	0.8	0.8	88.62	0.4	15.3	15.3	13.7	1.57	9.717 CC, ES			
500.0	500.0	500.0	500.0	1.0	1.0	-157.31	0.4	15.3	16.9	14.9	2.01	8.414 SF			
600.0	599.8	599.8	599.8	1.2	1.2	-162.59	0.4	15.3	21.8	19.4	2.43	8.959			
700.0	699.5	700.1	700.1	1.4	1.4	-164.96	-1.2	14.5	29.1	26.3	2.84	10.240			
800.0	798.7	800.5	800.3	1.7	1.6	-163.55	-5.8	12.0	37.6	34.3	3.24	11.588			
900.0	897.5	900.9	900.3	2.0	1.8	-160.49	-13.6	7.9	47.3	43.6	3.68	12.864			
1,000.0	995.6	1,001.2	999.9	2.4	2.1	-156.80	-24.5	2.2	58.5	54.3	4.17	14.035			
1,100.0	1,093.1	1,101.4	1,098.9	2.8	2.4	-153.01	-38.4	-5.1	71.3	66.5	4.73	15.057			
1,200.0	1,189.6	1,201.4	1,197.0	3.3	2.7	-149.35	-55.3	-14.0	85.8	80.4	5.40	15.888			
1,300.0	1,285.3	1,300.4	1,293.6	3.9	3.1	-146.37	-74.4	-24.0	102.4	96.2	6.16	16.614			
1,400.0	1,379.8	1,398.4	1,389.2	4.5	3.5	-145.03	-93.4	-34.0	121.9	114.9	6.97	17.482			
1,500.0	1,473.2	1,495.9	1,484.3	5.2	3.9	-144.79	-112.4	-44.0	144.3	136.5	7.81	18.475			
1,600.0	1,565.2	1,592.6	1,578.7	6.0	4.3	-145.21	-131.2	-53.9	169.4	160.7	8.65	19.574			
1,623.7	1,586.9	1,615.5	1,601.0	6.2	4.4	-145.37	-135.6	-56.2	175.8	166.9	8.86	19.847			
1,700.0	1,656.3	1,688.8	1,672.6	6.8	4.7	-146.08	-149.8	-63.7	196.5	187.0	9.53	20.632			
1,800.0	1,747.3	1,785.0	1,766.4	7.6	5.2	-146.82	-168.5	-73.5	223.8	213.4	10.41	21.490			
1,900.0	1,838.3	1,881.2	1,860.2	8.5	5.6	-147.39	-187.2	-83.4	251.0	239.7	11.31	22.197			
2,000.0	1,929.3	1,977.4	1,954.1	9.4	6.1	-147.86	-205.9	-93.2	278.3	266.1	12.21	22.787			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Lake 4-27
Project:	SEC.22-T7N-R67W	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Reference Site:	Lake - Ranchero Pad Sec.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-09-12)	Offset TVD Reference:	Offset Datum

Offset Design Lake - Ranchero Pad Sec.22-T7N-R67W - Lake 3-27 - Wellbore #1 - Plan #1 (4-05-12)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,100.0	2,020.3	2,073.6	2,047.9	10.2	6.5	-148.24	-148.24	-224.6	-103.0	305.6	292.5	13.13	23.287	
2,200.0	2,111.3	2,169.7	2,141.8	11.1	7.0	-148.55	-148.55	-243.3	-112.8	333.0	318.9	14.04	23.714	
2,300.0	2,202.4	2,265.9	2,235.6	12.0	7.4	-148.82	-148.82	-262.0	-122.7	360.3	345.3	14.96	24.084	
2,400.0	2,293.4	2,362.1	2,329.4	12.8	7.9	-149.06	-149.06	-280.7	-132.5	387.6	371.7	15.88	24.406	
2,500.0	2,384.4	2,458.3	2,423.3	13.7	8.3	-149.26	-149.26	-299.4	-142.3	415.0	398.2	16.81	24.689	
2,600.0	2,475.4	2,554.5	2,517.1	14.6	8.8	-149.43	-149.43	-318.0	-152.1	442.3	424.6	17.73	24.940	
2,700.0	2,566.4	2,650.6	2,610.9	15.5	9.2	-149.59	-149.59	-336.7	-162.0	469.6	451.0	18.66	25.164	
2,800.0	2,657.4	2,746.8	2,704.8	16.3	9.7	-149.73	-149.73	-355.4	-171.8	497.0	477.4	19.59	25.364	
2,900.0	2,748.4	2,843.0	2,798.6	17.2	10.1	-149.85	-149.85	-374.1	-181.6	524.3	503.8	20.53	25.545	
3,000.0	2,839.5	2,939.2	2,892.4	18.1	10.6	-149.96	-149.96	-392.8	-191.5	551.7	530.2	21.46	25.708	
3,100.0	2,930.5	3,035.4	2,986.3	19.0	11.0	-150.06	-150.06	-411.5	-201.3	579.1	556.7	22.39	25.857	
3,200.0	3,021.5	3,131.6	3,080.1	19.9	11.5	-150.16	-150.16	-430.2	-211.1	606.4	583.1	23.33	25.993	
3,300.0	3,112.5	3,227.7	3,173.9	20.8	11.9	-150.24	-150.24	-448.9	-220.9	633.8	609.5	24.27	26.117	
3,400.0	3,203.5	3,323.9	3,267.8	21.6	12.4	-150.32	-150.32	-467.6	-230.8	661.1	635.9	25.20	26.232	
3,500.0	3,294.5	3,420.1	3,361.6	22.5	12.9	-150.39	-150.39	-486.2	-240.6	688.5	662.3	26.14	26.337	
3,600.0	3,385.5	3,516.3	3,455.4	23.4	13.3	-150.45	-150.45	-504.9	-250.4	715.8	688.8	27.08	26.435	
3,700.0	3,476.6	3,612.5	3,549.3	24.3	13.8	-150.51	-150.51	-523.6	-260.2	743.2	715.2	28.02	26.526	
3,800.0	3,567.6	3,708.6	3,643.1	25.2	14.2	-150.57	-150.57	-542.3	-270.1	770.6	741.6	28.96	26.610	
3,900.0	3,658.6	3,804.8	3,736.9	26.1	14.7	-150.62	-150.62	-561.0	-279.9	797.9	768.0	29.90	26.689	
4,000.0	3,749.6	3,901.0	3,830.8	26.9	15.2	-150.67	-150.67	-579.7	-289.7	825.3	794.4	30.84	26.762	
4,100.0	3,840.6	3,997.2	3,924.6	27.8	15.6	-150.72	-150.72	-598.4	-299.6	852.6	820.9	31.78	26.831	
4,200.0	3,931.6	4,093.4	4,018.5	28.7	16.1	-150.76	-150.76	-617.1	-309.4	880.0	847.3	32.72	26.896	
4,300.0	4,022.6	4,189.5	4,112.3	29.6	16.5	-150.80	-150.80	-635.8	-319.2	907.4	873.7	33.66	26.957	
4,400.0	4,113.7	4,285.7	4,206.1	30.5	17.0	-150.84	-150.84	-654.4	-329.0	934.7	900.1	34.60	27.014	
4,500.0	4,204.7	4,381.9	4,300.0	31.4	17.4	-150.88	-150.88	-673.1	-338.9	962.1	926.6	35.54	27.068	
4,600.0	4,295.7	4,478.1	4,393.8	32.2	17.9	-150.91	-150.91	-691.8	-348.7	989.5	953.0	36.49	27.119	
4,700.0	4,386.7	4,574.3	4,487.6	33.1	18.4	-150.94	-150.94	-710.5	-358.5	1,016.8	979.4	37.43	27.167	
4,800.0	4,477.7	4,670.5	4,581.5	34.0	18.8	-150.97	-150.97	-729.2	-368.3	1,044.2	1,005.8	38.37	27.213	
4,900.0	4,568.7	4,766.6	4,675.3	34.9	19.3	-151.00	-151.00	-747.9	-378.2	1,071.6	1,032.3	39.31	27.256	
5,000.0	4,659.7	4,862.8	4,769.1	35.8	19.7	-151.03	-151.03	-766.6	-388.0	1,098.9	1,058.7	40.26	27.297	
5,100.0	4,750.8	4,959.0	4,863.0	36.7	20.2	-151.05	-151.05	-785.3	-397.8	1,126.3	1,085.1	41.20	27.337	
5,168.5	4,813.1	5,024.9	4,927.3	37.3	20.5	-151.07	-151.07	-798.1	-404.6	1,145.1	1,103.2	41.85	27.362	
5,200.0	4,841.8	5,055.2	4,956.8	37.5	20.7	-151.16	-151.16	-804.0	-407.7	1,153.5	1,111.4	42.14	27.373	
5,300.0	4,934.0	5,152.0	5,051.3	38.2	21.1	-151.36	-151.36	-822.8	-417.5	1,178.5	1,135.5	43.03	27.390	
5,400.0	5,027.4	5,237.3	5,134.6	38.8	21.5	-151.51	-151.51	-838.7	-425.9	1,200.9	1,157.1	43.77	27.439	
5,500.0	5,122.1	5,319.4	5,215.4	39.3	21.7	-151.67	-151.67	-852.0	-432.9	1,221.5	1,177.1	44.37	27.527	
5,600.0	5,217.8	5,400.0	5,295.0	39.8	21.9	-151.84	-151.84	-863.1	-438.8	1,240.4	1,195.5	44.90	27.626	
5,700.0	5,314.4	5,484.0	5,378.3	40.2	22.1	-152.04	-152.04	-872.5	-443.7	1,257.5	1,212.2	45.34	27.734	
5,800.0	5,411.9	5,566.3	5,460.2	40.6	22.3	-152.25	-152.25	-879.7	-447.5	1,272.9	1,227.2	45.69	27.857	
5,900.0	5,510.1	5,648.7	5,542.3	40.9	22.4	-152.47	-152.47	-884.7	-450.1	1,286.5	1,240.5	45.96	27.992	
6,000.0	5,608.9	5,731.0	5,624.6	41.2	22.5	-152.70	-152.70	-887.7	-451.7	1,298.3	1,252.2	46.14	28.136	
6,100.0	5,708.2	5,814.6	5,708.2	41.4	22.6	-152.96	-152.96	-888.6	-452.1	1,308.4	1,262.1	46.25	28.288	
6,200.0	5,807.9	5,914.3	5,807.9	41.6	22.8	-153.19	-153.19	-888.6	-452.1	1,315.9	1,269.6	46.32	28.411	
6,300.0	5,907.7	6,014.1	5,907.7	41.7	22.9	-153.33	-153.33	-888.6	-452.1	1,320.4	1,274.0	46.37	28.477	
6,392.3	6,000.0	6,106.4	6,000.0	41.8	22.9	90.05	90.05	-888.6	-452.1	1,321.7	1,275.3	46.42	28.475	
6,400.0	6,007.7	6,114.1	6,007.7	41.8	23.0	90.05	90.05	-888.6	-452.1	1,321.7	1,275.3	46.43	28.465	
6,500.0	6,107.7	6,214.1	6,107.7	41.8	23.1	90.05	90.05	-888.6	-452.1	1,321.7	1,275.1	46.64	28.341	
6,600.0	6,207.7	6,314.1	6,207.7	41.9	23.2	90.05	90.05	-888.6	-452.1	1,321.7	1,274.9	46.84	28.216	
6,700.0	6,307.7	6,414.1	6,307.7	42.0	23.3	90.05	90.05	-888.6	-452.1	1,321.7	1,274.6	47.05	28.089	
6,800.0	6,407.7	6,514.1	6,407.7	42.0	23.4	90.05	90.05	-888.6	-452.1	1,321.7	1,274.4	47.27	27.962	
6,900.0	6,507.7	6,614.1	6,507.7	42.1	23.5	90.05	90.05	-888.6	-452.1	1,321.7	1,274.2	47.48	27.834	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Lake 4-27
Project:	SEC.22-T7N-R67W	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Reference Site:	Lake - Rancho Pad Sec.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-09-12)	Offset TVD Reference:	Offset Datum

Offset Design Lake - Rancho Pad Sec.22-T7N-R67W - Lake 3-27 - Wellbore #1 - Plan #1 (4-05-12)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
7,000.0	6,607.7	6,714.1	6,607.7	42.2	23.6	90.05	-888.6	-452.1	1,321.7	1,274.0	47.70	27.706	
7,100.0	6,707.7	6,814.1	6,707.7	42.2	23.7	90.05	-888.6	-452.1	1,321.7	1,273.8	47.93	27.577	
7,200.0	6,807.7	6,914.1	6,807.7	42.3	23.8	90.05	-888.6	-452.1	1,321.7	1,273.5	48.15	27.447	
7,300.0	6,907.7	7,014.1	6,907.7	42.4	23.9	90.05	-888.6	-452.1	1,321.7	1,273.3	48.38	27.316	
7,400.0	7,007.7	7,114.1	7,007.7	42.5	24.1	90.05	-888.6	-452.1	1,321.7	1,273.1	48.62	27.185	
7,500.0	7,107.7	7,214.1	7,107.7	42.5	24.2	90.05	-888.6	-452.1	1,321.7	1,272.8	48.85	27.054	
7,600.0	7,207.7	7,314.1	7,207.7	42.6	24.3	90.05	-888.6	-452.1	1,321.7	1,272.6	49.09	26.922	
7,700.0	7,307.7	7,414.1	7,307.7	42.7	24.4	90.05	-888.6	-452.1	1,321.7	1,272.4	49.33	26.790	
7,762.3	7,370.0	7,476.4	7,370.0	42.7	24.5	90.05	-888.6	-452.1	1,321.7	1,272.2	49.49	26.708	

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Lake 4-27
Project:	SEC.22-T7N-R67W	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Reference Site:	Lake - Ranchero Pad Sec.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-09-12)	Offset TVD Reference:	Offset Datum

Offset Design Lake - Ranchero Pad Sec.22-T7N-R67W - Ranchero 13-22 - Wellbore #1 - Plan #1 (4-09-12)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-88.61	0.4	-15.0	15.0	15.0	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-88.61	0.4	-15.0	15.0	14.8	0.22	66.783		
200.0	200.0	200.0	200.0	0.3	0.3	-88.61	0.4	-15.0	15.0	14.3	0.67	22.261 CC, ES		
300.0	300.0	299.5	299.4	0.6	0.6	-87.30	0.8	-16.7	16.7	15.6	1.12	14.979		
400.0	400.0	398.7	398.5	0.8	0.8	-84.59	2.1	-21.7	21.8	20.3	1.56	13.960 SF		
500.0	500.0	497.5	497.0	1.0	1.0	36.31	4.1	-30.0	29.0	27.0	1.99	14.535		
600.0	599.8	596.0	594.7	1.2	1.3	42.39	7.1	-41.5	37.1	34.6	2.42	15.282		
700.0	699.5	694.0	691.6	1.4	1.6	48.85	10.8	-56.2	46.4	43.6	2.89	16.078		
800.0	798.7	791.5	787.3	1.7	2.0	55.01	15.3	-74.0	57.5	54.1	3.41	16.871		
900.0	897.5	888.4	881.8	2.0	2.4	60.56	20.5	-94.8	70.5	66.5	4.01	17.575		
1,000.0	995.6	984.6	974.8	2.4	2.9	65.40	26.5	-118.5	85.5	80.8	4.72	18.133		
1,100.0	1,093.1	1,080.1	1,066.3	2.8	3.5	69.53	33.2	-145.0	102.7	97.2	5.54	18.533		
1,200.0	1,189.6	1,174.8	1,156.1	3.3	4.1	73.02	40.6	-174.2	122.1	115.6	6.49	18.796		
1,300.0	1,285.3	1,269.1	1,244.5	3.9	4.7	76.00	48.7	-206.2	143.5	136.0	7.57	18.949		
1,400.0	1,379.8	1,366.2	1,335.1	4.5	5.4	79.08	57.3	-240.0	165.6	156.8	8.80	18.810		
1,500.0	1,473.2	1,463.1	1,425.4	5.2	6.2	82.39	65.8	-273.9	187.7	177.5	10.17	18.459		
1,600.0	1,565.2	1,559.6	1,515.5	6.0	6.9	85.84	74.3	-307.6	210.1	198.5	11.65	18.035		
1,623.7	1,586.9	1,582.5	1,536.8	6.2	7.1	86.67	76.4	-315.5	215.6	203.5	12.02	17.934		
1,700.0	1,656.3	1,655.8	1,605.3	6.8	7.6	89.49	82.8	-341.1	233.3	220.1	13.23	17.640		
1,800.0	1,747.3	1,752.0	1,695.0	7.6	8.3	92.59	91.3	-374.7	257.3	242.5	14.81	17.378		
1,900.0	1,838.3	1,848.2	1,784.8	8.5	9.1	95.16	99.8	-408.3	281.9	265.5	16.38	17.210		
2,000.0	1,929.3	1,944.5	1,874.5	9.4	9.8	97.33	108.3	-441.9	306.9	289.0	17.94	17.105		
2,100.0	2,020.3	2,040.7	1,964.3	10.2	10.5	99.17	116.8	-475.5	332.3	312.8	19.50	17.041		
2,200.0	2,111.3	2,136.9	2,054.0	11.1	11.3	100.75	125.3	-509.1	358.0	336.9	21.05	17.005		
2,300.0	2,202.4	2,233.1	2,143.8	12.0	12.0	102.12	133.8	-542.6	383.9	361.3	22.60	16.989		
2,400.0	2,293.4	2,329.3	2,233.5	12.8	12.8	103.31	142.3	-576.2	410.0	385.8	24.14	16.986		
2,500.0	2,384.4	2,425.5	2,323.3	13.7	13.5	104.37	150.8	-609.8	436.2	410.5	25.67	16.992		
2,600.0	2,475.4	2,521.7	2,413.1	14.6	14.2	105.30	159.3	-643.4	462.5	435.3	27.20	17.005		
2,700.0	2,566.4	2,617.9	2,502.8	15.5	15.0	106.14	167.8	-677.0	489.0	460.2	28.73	17.022		
2,800.0	2,657.4	2,714.1	2,592.6	16.3	15.7	106.88	176.3	-710.6	515.5	485.3	30.25	17.041		
2,900.0	2,748.4	2,810.3	2,682.3	17.2	16.5	107.56	184.7	-744.2	542.1	510.3	31.77	17.063		
3,000.0	2,839.5	2,906.5	2,772.1	18.1	17.2	108.17	193.2	-777.7	568.8	535.5	33.29	17.085		
3,100.0	2,930.5	3,002.7	2,861.8	19.0	17.9	108.73	201.7	-811.3	595.5	560.7	34.81	17.108		
3,200.0	3,021.5	3,098.9	2,951.6	19.9	18.7	109.24	210.2	-844.9	622.3	586.0	36.32	17.132		
3,300.0	3,112.5	3,195.1	3,041.3	20.8	19.4	109.71	218.7	-878.5	649.1	611.3	37.84	17.155		
3,400.0	3,203.5	3,291.4	3,131.1	21.6	20.2	110.14	227.2	-912.1	675.9	636.6	39.35	17.178		
3,500.0	3,294.5	3,387.6	3,220.8	22.5	20.9	110.54	235.7	-945.7	702.8	662.0	40.86	17.201		
3,600.0	3,385.5	3,483.8	3,310.6	23.4	21.7	110.91	244.2	-979.2	729.7	687.4	42.37	17.223		
3,700.0	3,476.6	3,580.0	3,400.3	24.3	22.4	111.25	252.7	-1,012.8	756.7	712.8	43.88	17.245		
3,800.0	3,567.6	3,676.2	3,490.1	25.2	23.1	111.57	261.2	-1,046.4	783.6	738.3	45.39	17.266		
3,900.0	3,658.6	3,772.4	3,579.9	26.1	23.9	111.87	269.7	-1,080.0	810.6	763.7	46.90	17.286		
4,000.0	3,749.6	3,868.6	3,669.6	26.9	24.6	112.15	278.2	-1,113.6	837.6	789.2	48.40	17.306		
4,100.0	3,840.6	3,964.8	3,759.4	27.8	25.4	112.41	286.7	-1,147.2	864.7	814.8	49.91	17.325		
4,200.0	3,931.6	4,061.0	3,849.1	28.7	26.1	112.65	295.2	-1,180.7	891.7	840.3	51.41	17.344		
4,300.0	4,022.6	4,157.2	3,938.9	29.6	26.9	112.88	303.6	-1,214.3	918.8	865.8	52.92	17.361		
4,400.0	4,113.7	4,253.4	4,028.6	30.5	27.6	113.10	312.1	-1,247.9	945.8	891.4	54.42	17.379		
4,500.0	4,204.7	4,349.6	4,118.4	31.4	28.3	113.31	320.6	-1,281.5	972.9	917.0	55.93	17.395		
4,600.0	4,295.7	4,445.8	4,208.1	32.2	29.1	113.50	329.1	-1,315.1	1,000.0	942.5	57.43	17.412		
4,700.0	4,386.7	4,542.1	4,297.9	33.1	29.8	113.69	337.6	-1,348.7	1,027.1	968.1	58.94	17.427		
4,800.0	4,477.7	4,638.3	4,387.6	34.0	30.6	113.86	346.1	-1,382.2	1,054.2	993.7	60.44	17.442		
4,900.0	4,568.7	4,734.5	4,477.4	34.9	31.3	114.03	354.6	-1,415.8	1,081.3	1,019.4	61.94	17.457		

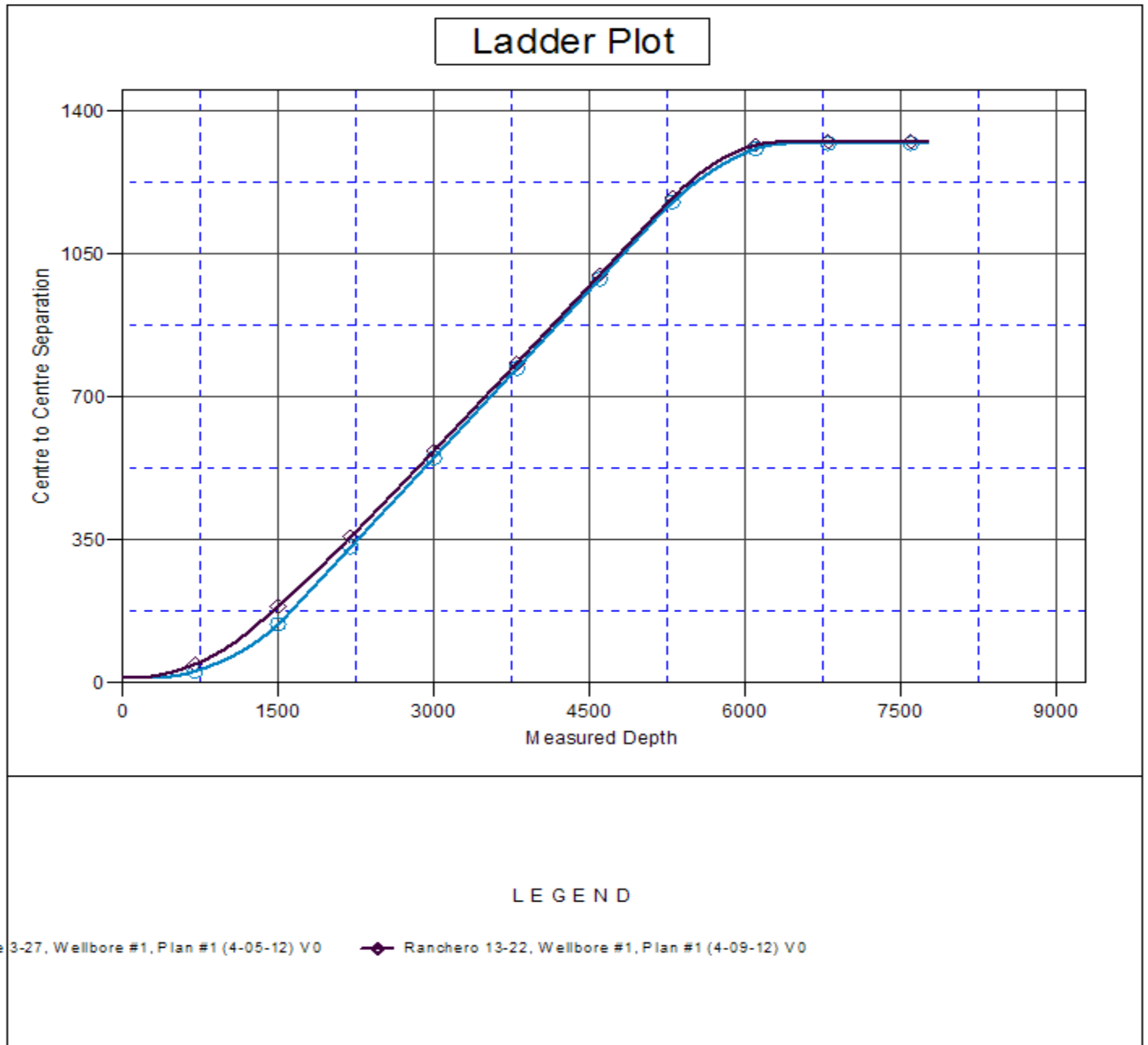
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Lake 4-27
Project:	SEC.22-T7N-R67W	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Reference Site:	Lake - Ranchero Pad Sec.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-09-12)	Offset TVD Reference:	Offset Datum

Offset Design Lake - Ranchero Pad Sec.22-T7N-R67W - Ranchero 13-22 - Wellbore #1 - Plan #1 (4-09-12)												Offset Site Error: 0.0 ft		
Survey Program: 0-MWD												Offset Well Error: 0.0 ft		
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,000.0	4,659.7	4,830.7	4,567.2	35.8	32.1	114.19	363.1	-1,449.4	1,108.4	1,045.0	63.44	17.471		
5,100.0	4,750.8	4,926.9	4,656.9	36.7	32.8	114.34	371.6	-1,483.0	1,135.6	1,070.6	64.95	17.485		
5,168.5	4,813.1	4,992.8	4,718.4	37.3	33.3	114.44	377.4	-1,506.0	1,154.2	1,088.2	65.98	17.494		
5,200.0	4,841.8	5,023.1	4,746.7	37.5	33.6	114.63	380.1	-1,516.6	1,162.6	1,096.2	66.44	17.499		
5,300.0	4,934.0	5,119.7	4,836.8	38.2	34.3	115.13	388.6	-1,550.3	1,188.6	1,120.8	67.81	17.528		
5,400.0	5,027.4	5,223.3	4,933.8	38.8	35.0	115.46	397.6	-1,585.7	1,213.0	1,143.9	69.11	17.551		
5,500.0	5,122.1	5,331.4	5,036.2	39.3	35.6	115.77	406.0	-1,619.2	1,235.2	1,164.9	70.25	17.583		
5,600.0	5,217.8	5,440.4	5,140.7	39.8	36.1	116.05	413.6	-1,649.1	1,255.0	1,183.7	71.26	17.610		
5,700.0	5,314.4	5,550.1	5,247.0	40.2	36.6	116.32	420.2	-1,675.3	1,272.4	1,200.2	72.17	17.631		
5,800.0	5,411.9	5,660.4	5,354.9	40.6	37.0	116.57	425.9	-1,697.7	1,287.4	1,214.5	72.95	17.648		
5,900.0	5,510.1	5,771.3	5,464.1	40.9	37.3	116.80	430.5	-1,716.1	1,300.0	1,226.4	73.62	17.659		
6,000.0	5,608.9	5,882.5	5,574.4	41.2	37.6	117.02	434.2	-1,730.5	1,310.2	1,236.0	74.16	17.666		
6,100.0	5,708.2	5,994.1	5,685.4	41.4	37.8	117.23	436.7	-1,740.7	1,317.8	1,243.2	74.59	17.667		
6,200.0	5,807.9	6,105.8	5,796.9	41.6	37.9	117.42	438.3	-1,746.7	1,323.0	1,248.1	74.90	17.663		
6,300.0	5,907.7	6,216.6	5,907.7	41.7	38.0	117.61	438.7	-1,748.5	1,325.7	1,250.6	75.10	17.652		
6,392.3	6,000.0	6,308.9	6,000.0	41.8	38.1	1.10	438.7	-1,748.5	1,326.4	1,251.1	75.23	17.631		
6,400.0	6,007.7	6,316.6	6,007.7	41.8	38.1	1.10	438.7	-1,748.5	1,326.4	1,251.1	75.24	17.629		
6,500.0	6,107.7	6,416.6	6,107.7	41.8	38.2	1.10	438.7	-1,748.5	1,326.4	1,251.0	75.39	17.594		
6,600.0	6,207.7	6,516.6	6,207.7	41.9	38.3	1.10	438.7	-1,748.5	1,326.4	1,250.8	75.54	17.559		
6,700.0	6,307.7	6,616.6	6,307.7	42.0	38.3	1.10	438.7	-1,748.5	1,326.4	1,250.7	75.69	17.523		
6,800.0	6,407.7	6,716.6	6,407.7	42.0	38.4	1.10	438.7	-1,748.5	1,326.4	1,250.5	75.85	17.487		
6,900.0	6,507.7	6,816.6	6,507.7	42.1	38.5	1.10	438.7	-1,748.5	1,326.4	1,250.4	76.01	17.451		
7,000.0	6,607.7	6,916.6	6,607.7	42.2	38.6	1.10	438.7	-1,748.5	1,326.4	1,250.2	76.17	17.414		
7,100.0	6,707.7	7,016.6	6,707.7	42.2	38.7	1.10	438.7	-1,748.5	1,326.4	1,250.0	76.33	17.377		
7,200.0	6,807.7	7,116.6	6,807.7	42.3	38.8	1.10	438.7	-1,748.5	1,326.4	1,249.9	76.49	17.339		
7,300.0	6,907.7	7,216.6	6,907.7	42.4	38.8	1.10	438.7	-1,748.5	1,326.4	1,249.7	76.66	17.301		
7,400.0	7,007.7	7,316.6	7,007.7	42.5	38.9	1.10	438.7	-1,748.5	1,326.4	1,249.5	76.83	17.263		
7,500.0	7,107.7	7,416.6	7,107.7	42.5	39.0	1.10	438.7	-1,748.5	1,326.4	1,249.4	77.00	17.225		
7,600.0	7,207.7	7,516.6	7,207.7	42.6	39.1	1.10	438.7	-1,748.5	1,326.4	1,249.2	77.18	17.186		
7,700.0	7,307.7	7,616.6	7,307.7	42.7	39.2	1.10	438.7	-1,748.5	1,326.4	1,249.0	77.35	17.147		
7,731.7	7,339.4	7,648.3	7,339.4	42.7	39.2	1.10	438.7	-1,748.5	1,326.4	1,249.0	77.41	17.134		
7,762.3	7,370.0	7,658.9	7,350.0	42.7	39.2	1.10	438.7	-1,748.5	1,326.5	1,249.1	77.45	17.128		

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Lake 4-27
Project:	SEC.22-T7N-R67W	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Reference Site:	Lake - Rancho Pad Sec.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-09-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5020.0ft (Original Well Elev) Coordinates are relative to: Lake 4-27
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.40°



Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Lake 4-27
Project:	SEC.22-T7N-R67W	TVD Reference:	WELL @ 5020.0ft (Original Well Elev)
Reference Site:	Lake - Ranchero Pad Sec.22-T7N-R67W	MD Reference:	WELL @ 5020.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lake 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-09-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5020.0ft (Original Well Elev) Coordinates are relative to: Lake 4-27
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Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.40°

